



C o u n t y o f S a n L u i s O b i s p o

## GENERAL SERVICES AGENCY

Janette D. Pell, Director

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### **INVITATION TO BID #3561-12 CHIP SEAL OIL AND SPREADING**

April 5, 2012

The County of San Luis Obispo is currently soliciting bids for Chip Seal Oil and Spreading as noted.

Each bid shall specify each and every item as set forth in the attached specifications. Any and all exceptions must be clearly stated in the bid. Failure to set forth any item in the specifications shall be grounds for rejection. The County of San Luis Obispo reserves the right to reject all bids and to waive any informalities.

Please submit your bids on the attached form. They must be received at the office of the General Services Agency no later than 3:00 p.m. on April 18, 2012.

Any and all comments and suggestions are sincerely encouraged prior to the bid opening.

All questions pertaining to the content of this Invitation to Bid must be made in writing no later than April 13, 2012 via e-mail to Jeremy Ghent at: [jghent@co.slo.ca.us](mailto:jghent@co.slo.ca.us). All questions will receive a response within three (3) business days. The question and its response will be posted (anonymously) on the Purchasing web site located at: [http://www.slocounty.ca.gov/GSA/Purchasing/Current\\_Formal\\_Bids\\_and\\_Proposals.htm](http://www.slocounty.ca.gov/GSA/Purchasing/Current_Formal_Bids_and_Proposals.htm). The County reserves the right to determine the appropriateness of comments / questions that will be posted on the website.

DEBBIE BELT  
Buyer – GSA Purchasing  
[dbelt@co.slo.ca.us](mailto:dbelt@co.slo.ca.us)

**TO:            ALL PROSPECTIVE BIDDERS**

**SUBJECT:    LOCAL BIDDERS PREFERENCE**

The County of San Luis Obispo has established a local vendor preference. All informal and formal bids for contracts will be evaluated with a preference for local vendors. Note the following exceptions:

1.        Those contracts which State Law requires be awarded to the lowest responsible bidder.
2.        Public works construction projects.

A "local" vendor will be approved as such when, 1) It conducts business in an office with a physical location within the County of San Luis Obispo; 2) It holds a valid business license issued by the County or a city within the County; and 3) Business has been conducted in such a manner for not less than six (6) months prior to being able to receive the preference.

As of March 3, 1994 individual County Buyers evaluate bids considering the local vendor preference described above. The burden of proof will lie with bidders relative to verification of "local" vendor preference. Should any questions arise, please contact a buyer at (805) 781-5200. All prospective bidders are encouraged to quote the lowest prices at which you can furnish the items or services listed in County bids.

	YES	NO
Do you claim local vendor preference?		
Do you conduct business in an office with a physical location within the County of San Luis Obispo?		
Business Address: _____ _____		
Years at this Address: _____		
Does your business hold a valid business license issued by the County or a City within the County?		
Name of Local Agency which issued license: _____		

Business Name: \_\_\_\_\_

Authorized Individual: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Dated: \_\_\_\_\_

**TO:                ALL PROSPECTIVE BIDDERS**

**SUBJECT:        POLICY ON PURCHASING PRODUCTS MADE WITH OR CONTAINING  
                      CHLOROFLUOROCARBONS (CFC's)**

Summary

Many products contain chlorofluorocarbons (CFC's), a known depleter of ozone in the atmosphere. Under the U.S. Clean Air Act and the Montreal Protocol on Substances that Deplete the Ozone Layer, CFC production for use in industrialized nations is to be totally phased out by January 1, 1996. There are still many products on the market that contain CFC's or are made with CFC's. The Department of General Services, purchasing staff must identify products made with or containing CFC's and purchase alternative products whenever practical and possible.

Policy

To this end, it shall be the policy of the County of San Luis Obispo that all bidders, who wish to do business with the County are required to identify all products that contain CFC's or use CFC's in the manufacturing or shipping processes. Bidders are required to identify alternative products that do not use CFC's, for possible purchase by the County.

Bidder Response

	YES	NO
Do any products offered herein contain CFC's or use CFC's in the manufacturing or shipping process?		
If yes, please offer an alternative product by copying bid forms and submitting an alternate bid. Will you offer an alternate?		
Please provide any other information that may be helpful to the County. Attachments are acceptable.		

Bidder: \_\_\_\_\_

**GENERAL CONDITIONS AND INSTRUCTIONS**

1. All bids submitted by Seller to Purchaser should be submitted upon the attached bidder's form, completed and signed, (only typewritten or ink shall be accepted with no erasures or corrections unless properly authenticated by signature) in accordance with the instructions contained herein.
2. The issuance of this bid request creates no obligation on the part of the County and the County reserves the unconditional right at its option to either reject all bids or waive any irregularities or informalities therein. Each bid shall be in a separate sealed envelope with the bid number, name of bidder, title of the bid, date and time due showing on the outside of the envelope.
3. All prices must be firm for 45 days from the date of the bid opening and be inclusive. Upon award, prices will be in effect for the initial term of the contract.

A. Price increase may be allowed for each option period as a results of:

- 1) Manufacturer or Supplier price increases in the product(s) offered;
- 2) Governmental or regulatory agency increases to the trade;
- 3) National Average Consumer Price Index and CalTrans Asphalt Index increases as published by the United State Department of Labor.

Any request for a price increase must be substantiated with documentation from the Contractor, a manufacturer, supplier, or governmental agency and must be submitted in writing at least thirty (30) days prior to the effective date of the increase.

4. If you offer any prompt payment discounts, please indicate this on your bid.
5. Awards will be made to realize the greatest savings to the County.
6. Submission of a signed bid will be interpreted to mean that the bidder has thereby agreed to all conditions, instructions, descriptions and specifications contained herein.
7. All materials included in the contract shall be in compliance with all Federal and State OSHA laws.
8. All applicable City, State, and Federal taxes and fees are to be included in the proposal.
9. The only terms that will be honored are those terms included in general and special conditions and instructions, purchase order or other documents issued by the County.
10. In the event of any conflicts or ambiguities between these instructions and State or Federal laws, regulations or rules, then the latter shall prevail.
11. Only one bid will be accepted per vendor.

12. Bidders may withdraw their bid either personally, by written request, or by telegraphic request confirmed in the manner specified above at any time prior to the scheduled closing time for receipt of bids. No bidder may withdraw their bid after the time set for the opening.
13. All time limits stated are of the essence. Any bids received after closing time stipulated will be returned unopened.
14. All bids must be submitted in a manner so they can be readily hole punched and placed in a standard legal size file folder.
15. The County may make partial payments after a substantial portion of the merchandise has been delivered. On all items, a 10% retention will be withheld until all merchandise has been accepted.
16. Brand names are used to establish a level of quality only. Any alternates must be approved five (5) days prior to the bid opening date, by the Buyer, who will have the sole right to make the determination. If an alternate is submitted without going through the above- described process, the County will have the sole right to decide whether or not an alternate is acceptable.
17. Vendor agrees that it will not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin and that it will comply with the "Contractor's Agreements" provisions of Presidential Executive Order No. 11246.
18. **NO FAXED** Bids will be accepted.
19. Return bid by April 18, 2012, at 3:00 p.m. to:

COUNTY OF SAN LUIS OBISPO  
GENERAL SERVICES AGENCY  
DEBBIE BELT, BUYER  
1087 SANTA ROSA STREET  
SAN LUIS OBISPO, CALIFORNIA 93408

**SPECIAL TERMS, CONDITIONS, AND INSTRUCTIONS**

1. **TERM OF CONTRACT:** The term of the contract(s), if awarded, shall commence with the date of award of contract(s) and end June 30, 2013. County and Contractor may extend the term of this contract for four (4) additional one (1) year terms upon mutual written consent.
2. **NON-EXCLUSIVE:** The County reserves the right to award to one or more than one vendor for this service.
3. **TERMINATION OF CONTRACT:**  
WITH CAUSE: The County may immediately cancel this contract for cause. Due cause for termination shall include, but not be limited to failure to deliver according to schedule, failure to respond to technical questions in a satisfactory manner, and/or other reasons of unsatisfactory service.  
  
WITHOUT CAUSE: Both the County and the contractor may, upon giving thirty (30) days written notice, terminate this contract with or without cause.
4. **INSURANCE:** Contractor, at its sole cost and expense, shall purchase and maintain the insurance policies set forth below on all of its operations under this Agreement. Such policies shall be maintained for the full term of this Agreement and the related warranty period (if applicable) and shall provide products/completed operations coverage for four (4) years following completion of Contractor's work under this Agreement and acceptance by the County. Any failure to comply with reporting provision(s) of the policies referred to above shall not affect coverage provided to the County, its officers, employees, volunteers and agents. For purposes of the insurance policies required hereunder, the term "County" shall include officers, employees, volunteers and agents of the County of San Luis Obispo, California, individually or collectively.
  1. **Minimum Scope And Limits Of Required Insurance Policies**  
The following policies shall be maintained with insurers authorized to do business in the State of California and shall be issued under forms of policies satisfactory to the County:
    - a. **Commercial General Liability Insurance Policy ("Cgl")**  
Policy shall include coverage at least as broad as set forth in Insurance Services Office (herein "ISO") Commercial General Liability coverage. (Occurrence Form CG 0001) with policy limits not less than the following:
      - \$1,000,000 each occurrence (combined single limit);
      - \$1,000,000 for personal injury liability;
      - \$1,000,000 aggregate for products-completed operations; and,
      - \$1,000,000 general aggregate.The general aggregate limits shall apply separately to Contractor's work under this Agreement.
    - b. **Business Automobile Liability Policy ("Bal")**  
Policy shall include coverage at least as broad as set forth in Insurance Services Office Business Automobile Liability Coverage, Code 1 "Any Auto" (Form CA 0001). This policy shall include a minimum combined single limit of not less than One-million (\$1,000,000) dollars for each accident, for bodily injury and/or

property damage. Such policy shall be applicable to vehicles used in pursuit of any of the activities associated with this Agreement. Contractor shall not provide a Comprehensive Automobile Liability policy that specifically lists scheduled vehicles without the express written consent of County.

c. **Workers' Compensation And Employers' Liability Insurance Policy ("Wc/EI")**

This policy shall include at least the following coverage and policy limits:

1. Workers' Compensation insurance as required by the laws of the State of California; and
2. Employer's Liability Insurance Coverage B with coverage amounts not less than one million (\$1,000,000) dollars each accident/Bodily Injury (herein "BI"); one million (\$1,000,000) dollars policy limit BI by disease; and, one million (\$1,000,000) dollars each employee BI by disease.

d. **Professional Liability Insurance Policy ("PI")**

This policy shall cover damages, liabilities, and costs incurred as a result of Contractor's professional errors and omissions or malpractice. This policy shall include a coverage limit of at least One Million Dollars (\$1,000,000) per claim, including the annual aggregate for all claims (such coverage shall apply during the performance of the services under this Agreement and for two (2) years thereafter with respect to incidents which occur during the performance of this Agreement). Contractor shall notify the County if any annual aggregate is eroded by more than seventy-five percent (75%) in any given year.

2. **Deductibles And Self-Insurance Retentions**

Any deductibles and/or self-insured retentions which apply to any of the insurance policies referred to above shall be declared in writing by Contractor and approved by the County before work is begun pursuant to this Agreement. At the option of the County, Contractor shall either reduce or eliminate such deductibles or self-insured retentions as respect the County, its officers, employees, volunteers and agents, or shall provide a financial guarantee satisfactory to the County guaranteeing payment of losses and related investigations, claim administration, and/or defense expenses.

3. **Endorsements**

All of the following clauses and endorsements, or similar provisions, are required to be made a part of insurance policies indicated in parentheses below:

- a. A "Cross Liability", "Severability of Interest" or "Separation of Insured" clause (CGL & BAL);
- b. The County of San Luis Obispo, its officers, employees, volunteers and agents are hereby added as additional insured with respect to all liabilities arising out of Contractor's performance of work under this Agreement (CGL & BAL);
- c. If the insurance policy covers an "accident" basis, it must be changed to "occurrence" (CGL & BAL);
- d. This policy shall be considered primary insurance with respect to any other valid and collectible insurance County may possess, including any self-insured retention County may have, and any other insurance County does possess shall be considered excess insurance only and shall not be called upon to contribute to this insurance (CGL, BAL & PL);

- e. No cancellation or non-renewal of this policy, or reduction of coverage afforded under the policy, shall be effective until written notice has been given at least thirty (30) days prior to the effective date of such reduction or cancellation to County at the address set forth below (CGL, BAL, WC/EL & PL);
- f. Contractor and its insurers shall agree to waive all rights of subrogation against the County, its officers, employees, volunteers and agents for any loss arising under this Agreement (CGL); and
- g. Deductibles and self-insured retentions must be declared (All Policies).

4. **Absence Of Insurance Coverage**

County may direct Contractor to immediately cease all activities with respect to this Agreement if it determines that Contractor fails to carry, in full force and affect, all insurance policies with coverage at or above the limits specified in this Agreement. Any delays or expense caused due to stopping of work and change of insurance shall be considered Contractor's delay and expense. At the County's discretion, under conditions of lapse, the County may purchase appropriate insurance and charge all costs related to such policy to Contractor.

5. **Proof Of Insurance Coverage And Coverage Verification**

Prior to commencement of work under this Agreement, and annually thereafter for the term of this Agreement, Contractor, or each of Contractor's insurance brokers or companies, shall provide County a current copy of a Certificate of Insurance, on an Accord or similar form, which includes complete policy coverage verification, as evidence of the stipulated coverage. All of the insurance companies providing insurance for Contractor shall have, and provide evidence of, a Best Rating Service rate of A VI or above. The Certificate of Insurance and coverage verification and all other notices related to cancellation or non-renewal shall be mailed to: Public Works, County Govt Center, Room 207, San Luis Obispo, CA 93408

5. **INDEMNIFICATION:** Contractor shall defend, indemnify and hold harmless the County, its officers and employees from all claims, demands, damages, costs, expenses, judgments, attorney fees, liabilities or other losses that may be asserted by any person or entity, including Contractor, and that arise out of or are made in connection with the acts or omissions, relating to the performance of any duty, obligation, or work hereunder. The obligation to indemnify shall be effective and shall extend to all such claims and losses, in their entirety, even when such claims or losses arise from the comparative negligence of the County, its officers and employees. However, this indemnity will not extend to any claims or losses arising out of the sole negligence or willful misconduct of the County, its officers and employees.

The preceding paragraph applies to any theory of recovery relating to said act or omission by the Contractor, or its agents, employees, or other independent contractors directly responsible to Contractor, including, but not limited to the following:

- 1. Violation of statute, ordinance, or regulation.
- 2. Professional malpractice.
- 3. Willful, intentional or other wrongful acts, or failures to act.
- 4. Negligence or recklessness.



5.      Furnishing of defective or dangerous products.
6.      Premises liability.
7.      Strict Liability.
8.      Inverse condemnation.
9.      Violation of civil rights.
10.     Violation of any federal or state statute, regulation, or ruling resulting in a determination by the Internal Revenue Service, California Franchise Tax Board or any other California public entity responsible for collecting payroll taxes, when the Contractor is not an independent contractor.

It is the intent of the parties to provide the County the fullest indemnification, defense, and "hold harmless" rights allowed under the law. If any word(s) contained herein are deemed by a court to be in contravention of applicable law, said word(s) shall be severed from this contract and the remaining language shall be given full force and effect.

6.      **INDEPENDENT CONTRACTOR:** Selected contractor shall be considered an independent contractor and not an agent of or an employee of the County of San Luis Obispo. The contractor does not qualify for tax withholding, worker's compensation as a County employee, or other fringe benefits of any kind.
7.      **QUESTIONS:** Bidder may direct any questions regarding this bid via e-mail to Jeremy Ghent at [jghent@co.slo.ca.us](mailto:jghent@co.slo.ca.us).

**Polymer Modified Rejuvenating Emulsion**

The asphalt emulsion shall be a polymer modified rejuvenating Emulsion with a latex polymer, rejuvenating agent and asphalt and shall meet the following specifications. The polymer shall be PA-AS- 1 a product of Polymer Science of America or approved equal.

**Section I. Product Specification:**

Test on Emulsion	Method	Specification
Viscosity @122° F (SFS)	ASTM D244	50 - 400
Residue, w%, minimum.	ASTM D244	65
pH	ASTM E70	2.0-5.0
Sieve, w%, max.	ASTM D244	0.1
Oil distillate, w%, max.	ASTM D244	0.5
<b><u>Test on Residue<sup>(1)</sup></u></b>		
Viscosity @ 140°F, (P), maximum.	ASTM D2171	5000
Penetration @ 39.2°F, minimum.	ASTM D5	40
Elastic Recovery on residue by distillation, %, minimum.	AASHTO T59, T301 (1,2)	45
<b><u>Test on Latex:</u></b>		
Specific Gravity (minimum)	ASTM 1475	1.08
Tensile strength, die C dumbbell, psi, minimum	ASTM D412 <sup>(3)</sup>	500
Swelling in rejuvenating agent, % maximum; 48 hours exposure @ 104°F	ASTM D471 <sup>(4)</sup> Modified	40% intact film
<b><u>Test on rejuvenating agent:</u></b>		
Flash point, COC , °F	ASTM D92	> 380
Hot Mix Recycling Agent Classification	ASTM D4552	See Section II

<sup>(1)</sup> Exception to AASHTO T59: Bring the temperature on the lower thermometer slowly to 350° F plus or minus 10° F. Maintain at this temperature for 20 minutes. Complete total distillation in 60 plus or minus 5 minutes from first application of heat.

<sup>(2)</sup> Elastic Recovery @ 10° C (50° F): Hour glass sides, pull 20 cm, hold 5 minutes then cut, let sit 1 hour.

<sup>(3)</sup> Tensile Strength Determination: Samples for testing for tensile strength in accordance with ASTM D412 shall be cut using a die dumbbell at a crosshead speed of 20 in/min.

<sup>(4)</sup> Latex Testing: Suitable substrate for film formation shall be polyethylene boards, silicone rubber sheeting, glass, or any substrate which produces a cured film of uniform cross-section. Polymer film shall be prepared from latex as follows:

Resistance to Swelling: Polymer films shall be formed by using a 50 mil drawdown bar and drawing down 50 mils of the latex on polyethylene boards. Films shall be cured for 14 days at 75°F and 50% humidity. Samples for resistance to swelling in rejuvenating agent shall be 1" by 2" rectangles cut from the cured film. Cut at least 3 specimens for each sample to be tested for swelling. Fill 3- 8 oz ointment tins with at least a ½" deep of rejuvenating agent. Swelling samples shall be weighed and then placed in the ointment tins on top of the rejuvenating agent. Then, add at least another ½" deep of rejuvenating agent over each of the latex samples. The ointment tins shall be covered and placed in an oven at 104°F for the specified 48 hours +/- 15 minutes. The ointment tins are allowed to cool to 75°F and then the latex films are removed from the tins. Unabsorbed rejuvenating agent is removed from the intact latex film by scraping with a rubber policeman and blotting with paper towels. If the latex film does not remain intact during removal from the tins or while removing the unabsorbed rejuvenating agent the sample shall be rejected. After the rejuvenating agent is removed from the samples they are then weighed. Percent swelling is reported as weight increase of the polymer film; report mass increase as a percent by weight of the original latex film mass upon exposure of films to the recycling agent.

## Section II - Recycling Agent

The recycling agent shall meet the following specification:

Test	Specification
Viscosity, 140F, CST	50-175
Flash Point, F, COC	380 Min.
Saturate, % by wt.	30 Max
Asphaltenes	1.0 Max.
<b>Test on Residue</b>	
Weight Change, %	6.5 Max.
Viscosity Ratio	3 Max

## Section III- Material Certifications and Testing

The emulsion manufacturer shall submit to the agency certification that the emulsion meets the specification. The latex manufacturer through the emulsion supplier shall submit to the agency test results from an accredited laboratory certification that the latex is compatible in a cationic solution and meets the required specifications and that it is supplying the latex specified for this contract. The agency will not accept test results dated more than 90 days from the date of bid opening.

The refinery refining the recycling agent, through emulsion supplier shall submit to the agency test results on the recycling agent and certification that the recycling agent meets the required specifications.

Polymer film's required for testing must be prepared in accordance with this specification by a laboratory with an IAS ISO 17025 accreditation. The polymer films used for testing shall be derived from the same 1 quart sample received from the manufacture of the latex. The swell test, tensile test and specific gravity test shall be certified and performed by the same laboratory. The refinery manufacturing the recycling agent shall submit to the laboratory testing the latex a one quart sample of the recycling agent for use in the swell test.

Certifications and test results on the latex and the recycling agent shall be submitted and **attached to the bid proposal**.

Certifications and test results on the emulsion must be submitted to the agency and approved by the agency 5 days prior to supplying material.

Prior to and during the project the agency may require one quart samples of both the finished emulsion and the latex used in the emulsion. The agency will be allowed to withdraw samples from the supplier's storage tanks and submit to the agency designated laboratory for testing. All testing shall be at the Agency's expense.

**Polymer Modified Rejuvenating Emulsion Fog Seal**

The asphalt emulsion shall be a polymer modified rejuvenating Emulsion with a latex polymer, rejuvenating agent and asphalt and shall meet the following specifications. The polymer shall be PA-AS- 1 a product of Polymer Science of America or approved equal.

**Section I.**

**Product Specification: (CONCENTRATE)**

Test on Emulsion	Method	Specification
Viscosity @77 (SFS)	ASTM D244	20 - 100
Residue, w%, minimum.	ASTM D244	65
pH	ASTM E70	2.0-5.0
Sieve, w%, max.	ASTM D244	0.1
Oil distillate, w%, max.	ASTM D244	0.5
Test on Residue <sup>(1)</sup>		
Viscosity @ 140°F, (P), maximum.	ASTM D2171	5000
Penetration @ 39.2°F, minimum.	ASTM D5	40
Elastic Recovery on residue by distillation, %, minimum.	AASHTO T59, T301 (1,2)	45
Test on Latex:		
Specific Gravity (minimum)	ASTM 1475	1.08
Tensile strength, die C dumbbell, psi, minimum	ASTM D412 <sup>(3)</sup>	500
Swelling in rejuvenating agent, % maximum; 48 hours exposure @ 104°F	ASTM D471 <sup>(4)</sup> Modified	40% intact film
Test on rejuvenating agent:		
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Hot Mix Recycling Agent Classification	ASTM D4552	See Section II

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<sup>(3)</sup> Tensile Strength Determination: Samples for testing for tensile strength in accordance with ASTM D412 shall be cut using a die dumbbell at a crosshead speed of 20 in/min.

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Flash Point, F, COC	380 Min.
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Asphaltenes	1.0 Max.
<b>Test on Residue</b>	
Weight Change, %	6.5 Max.
Viscosity Ratio	3 Max

**Section III- Material Certifications and Testing**

The emulsion manufacturer shall submit to the agency certification that the emulsion meets the specification. The latex manufacturer through the emulsion supplier shall submit to the agency test results from an accredited laboratory certification that the latex is compatible in a cationic solution and meets the required specifications and that it is supplying the latex specified for this contract. The agency will not accept test results dated more than 90 days from the date of bid opening.

The refinery refining the recycling agent, through emulsion supplier shall submit to the agency test results on the recycling agent and certification that the recycling agent meets the required specifications.

Polymer film's required for testing must be prepared in accordance with this specification by a laboratory with an IAS ISO 17025 accreditation. The polymer films used for testing shall be derived from the same 1 quart sample received from the manufacture of the latex. The swell test, tensile test and specific gravity test shall be certified and performed by the same laboratory. The refinery manufacturing the recycling agent shall submit to the laboratory testing the latex a one quart sample of the recycling agent for use in the swell test.

Certifications and test results on the latex and the recycling agent shall be submitted and **attached to the bid proposal**.

Certifications and test results on the emulsion must be submitted to the agency and approved by the agency 5 days prior to supplying material.

Prior to and during the project the agency may require one quart samples of both the finished emulsion and the latex used in the emulsion. The agency will be allowed to withdraw samples from the supplier's storage tanks and submit to the agency designated laboratory for testing. All testing shall be at the Agency's expense.

## SECTION 94

## ASPHALTIC EMULSIONS

TABLE 3: Requirements for Polymer Modified Asphaltic Emulsion

Properties	Type Grade	Anionic				Cationic			
		PMRS2		PMRS2h		PMCRS2		PMCRS2h	
		min	max	min	max	min	max	min	max
Tests on emulsions:	Test Method	--				--			
Saybolt Furol Viscosity, @ 50 °C, SFS <sup>a</sup>	AASHTO T 59	75	300	75	300	75	300	75	300
Settlement, 5 days, %		--	5	--	5	--	5	--	5
Storage Stability, 1 day, %		--	1	--	1	--	1	--	1
Sieve Test, %		--	0.30	--	0.30	--	0.30	--	0.30
Demulsibility, %		60 <sup>b</sup>	--	60 <sup>b</sup>	--	40 <sup>c</sup>	--	40 <sup>c</sup>	--
Particle Charge		--		--		Positive		Positive	
Ash Content, %	ASTM D 3723	--	0.2	--	0.2	--	0.2	--	0.2
Residue by Evaporation, %	California Test 331	65	--	65	--	65	--	65	--
Test on residue from evaporation test:	California Test 331	--				--			
Penetration, 25°C	AASHTO T 49	100	200	40	90	100	200	40	90
Ductility, 25°C, mm	AASHTO T 51	400	--	400	--	400	--	400	--
and either:	--								
Torsional recovery, %	California Test 332	18	--	18	--	18	--	18	--
or	--								
Polymer content, 5% (by weight) <sup>d</sup>	California Test 401	2.5	--	2.5	--	2.5	--	2.5	--

<sup>a</sup>Means Saybolt Furol seconds<sup>b</sup>Use 35 ml of 0.02 N CaCl<sub>2</sub> solution<sup>c</sup>Use 35 ml of 0.8% sodium dioctyl sulfosuccinate solution<sup>d</sup>See sampling requirements specified in 94-1.01C and 94-1.01D.

## CHIP SEAL OIL AND SPREADING

## SECTION 94

## ASPHALTIC EMULSIONS

TABLE 4: Requirements for Quick-Setting Asphaltic Emulsion

Properties	Type Grade	Anionic				Cationic			
		QS1		QS1h		CQS1		CQS1h	
		min	max	min	max	min	max	min	max
Tests on emulsions:	Test Method	--				--			
Saybolt Furol Viscosity, @ 50 °C, SFS <sup>a</sup>	AASHTO T 59	15	90	15	90	15	90	15	90
Sieve test, %		--	0.30	--	0.30	--	0.30	--	0.30
Storage stability, 1 day, %		--	1	--	1	--	1	--	1
Residue by distillation, %		57	--	57	--	57	--	57	--
Particle charge <sup>b</sup>		negative	negative		positive	positive			
Tests on Residue from Distillation Test:	--	--				--			
Penetration, 25°C	AASHTO T 49	100	200	40	90	100	200	40	90
Ductility, 25°C, mm	AASHTO T 51	400	--	400	--	400	--	400	--
Solubility in trichloroethylene, %	AASHTO T 44	97	--	97	--	97	--	97	--

<sup>a</sup>Means Saybolt Furol seconds<sup>b</sup>If the result of the particle charge test is inconclusive, the asphaltic emulsion must be tested for pH under ASTM E 70. Grade QS1h asphaltic emulsion must have a minimum pH of 7.3. Grade CQS1h asphaltic emulsion must have a maximum pH of 6.7.

## 94-1.03 CONSTRUCTION

Asphaltic emulsion may be reheated if necessary. After loading into a tank car or truck for transport to the job site, do not heat asphaltic emulsion above 150 degrees F. Quickly discharge upon the asphaltic emulsion to prevent localized overheating.

Apply asphaltic emulsion under section 92.

Except when used for fog seal areas, apply Curing Grade 1 asphaltic emulsions at a temperature from 75 to 125 degrees F and apply Setting Grade 2 asphaltic emulsions from 110 to 155 degrees F.

Asphaltic emulsion must not come to a temperature below 40 degrees F.

## 94-1.03 PAYMENT

Unit price payment is measured by weight, after the specific solids required, it is not excluding the uncollected weight of water if used.

Asphaltic emulsion quantities are determined as specified for liquid asphalt under section 53 except for equivalent measurements to determine pay quantities.

Weight is measured from scientific measurements of

1. Partial loads are used.
2. A metering plant is not used and scales are not available within 25 miles.
3. Asphaltic emulsion is measured as:
  - 1.1 Trucks with open tank trailers are accompanied by its measuring stick and calibrating chain.
  - 1.2 Trucks equipped with a calibrated flowmeter that determines the asphaltic emulsion temperature at delivery and equipped with a variable tank meter.

For asphaltic emulsion determined from volumetric measurements, the measured volume is reduced to the volume the material would occupy at 70 degrees F before converting the volume to weight using the

## CHIP SEAL OIL AND SPREADING

TABLE I: Requirements for Anionic Asphaltic Emulsion

Properties	Type Grade	Rapid-Setting						Medium-Setting						Slow-Setting					
		RS1			RS2			MS1			MS2			MS2h			SS1		
		min	max		min	max		min	max		min	max		min	max		min	max	
Tests on emulsions:																			
Saybolt Furol Viscosity, @ 25 °C, SFS <sup>a</sup>		20	100	--	--	--		20	100	100	--	100	--	20	100	20	100		
Saybolt Furol Viscosity, @ 50 °C, SFS <sup>a</sup>		--	--	75	400	--		--	--	--	--	--	--	--	--	--	--		
Settlement, 5 days, % <sup>b</sup>		--	5	--	5	--		--	5	--	5	--	5	--	5	--	5		
Storage stability test, 1 day, % <sup>c</sup>		--	1	--	1	--		--	1	--	1	--	1	--	1	--	1		
Demulsibility, 35 ml, 0.02 N CaCl <sub>2</sub> , % <sup>d</sup>		60	--	60	--	--		--	--	--	--	--	--	--	--	--	--		
Coating ability and water resistance:																			
Coating, dry aggregate		--	--	--	--	--		good	good	good	good	good	good	--	--	--	--		
Coating, after spraying		--	--	--	--	--		fair	fair	fair	fair	fair	fair	--	--	--	--		
Coating, wet aggregate		--	--	--	--	--		fair	fair	fair	fair	fair	fair	--	--	--	--		
Coating, after spraying		--	--	--	--	--		fair	fair	fair	fair	fair	fair	--	--	--	--		
Cement mixing test, %		--	--	--	--	--		--	--	--	--	--	--	--	2.0	--	2.0		
Sieve test, %		--	0.10	--	0.10	--		--	0.10	--	0.10	--	0.10	--	0.10	--	0.10		
Residue by distillation, %		55	--	63	--	--		55	--	65	--	65	--	57	--	57	--		
Tests on residue from distillation test:																			
Penetration, 25 °C		100 <sup>e</sup>	200	100 <sup>e</sup>	200	--		100	200	100	200	40	90	100	200	40	90		
Ductility, 25 °C, 50 mm/minute, mm		400	--	400	--	--		400	--	400	--	400	--	400	--	400	--		
Solubility in trichloroethylene, %		97.5	--	97.5	--	--		97.5	--	97.5	--	97.5	--	97.5	--	97.5	--		

<sup>a</sup>SFS means Saybolt Furol seconds<sup>b</sup>The Engineer may require settlement tests from the time the sample is received until the asphaltic emulsion is used if the elapsed time is less than 5 days. Settlement tests may be waived when the asphaltic emulsion is used in less than 5 days.<sup>c</sup>The 24-hour storage stability test may be used instead of the 5-day settlement test<sup>d</sup>The demulsibility test must be made within 30 days from date of shipment.<sup>e</sup>A harder base asphalt meeting current paving asphalt specifications may be specified if the test requirements on the residue from distillation are waived.





December 17, 2010

**FastSet®***Ready to Use Fog Seal Specification*

EMULSION SPECIFICATIONS			
Test on Emulsion	Test Method	Min	Max
Sieve, 20 mesh, % retained	AASHTO T-59	-	0.3
Particle Charge Test	AASHTO T-59	Positive	-
Residue, minimum % (diluted, ready to use)	AASHTO T-59	38	-
Test on Residue	Test Method	Min	Max
Solubility in TCE, %	AASHTO T-44	97.5	-
Ductility, mm, 25°C	AASHTO T-51	100+	-
Elastic Recovery, 25°C	AASHTO T-301	45	-
Softening Point (°C)	AASHTO T-53	45	-

EXPECTED RETURN-TO-TRAFFIC TIMES	
Temp Range	Time (Typical)
75 – 105 F	15 - 25 min.
59 – 74 F	25 - 35 min.

NM: #351372 CA: #672104 AZ: #093522

**ARIZONA:**

3900 E. Broadway Boulevard  
Tucson, Arizona 85711  
phone: (520) 622-7203  
toll-free: (800) 513-4207  
fax: (520) 798-3914  
sales@westernemulsions.com

**CALIFORNIA:**

Three Monarch Bay Plaza, Suite 210  
Dana Point California 92629  
phone: (949) 248-8020  
toll-free: (888) 705-4137  
fax: (949) 248-8023  
sales@westernemulsions.com

**PLANT LOCATIONS:**

Roswell, New Mexico  
phone: (575) 347-9727  
Inlandale, California  
phone: (626) 358-8049

Tucson, Arizona  
phone: (520) 624-4130  
Billings, Montana  
phone: (406) 628-1401



eco-conscious products

Prior to and during the project the agency may require one quart samples of both the finished emulsion and the latex used in the emulsion. The agency will be allowed to withdraw samples from the supplier's storage tanks and submit to the agency designated laboratory for testing. All testing shall be at the Agency's expense.

A total of two trucks and trailers with computerized spreaders will be required each day. The product will be available in any combination of product and quantity of material. The total tonnage is approximate and may be adjusted, with no adjustment of unit price. Only one truck and trailer may be required for Fog Seal application.

The successful bidder is to provide the name and phone number of the person to contact to place orders and handle questions. An alternate 24 hour phone number is also required. The vendor must indicate the name of the company, if not their own, that will be hauling and spreading the oil.

## CHIP SEAL OIL AND SPREADING

## BID SUMMARY

Page#		Estimated Usage	Unit	Description	Price
				<b>BID PRICE TO INCLUDE ALL APPLICABLE FREIGHT CHARGES AND SALES TAX.</b>	
1	10 & 11	1,000	Ton	Polymer Modified Rejuvenating Emulsion. Per specifications.	\$_____/ton
2	12 & 13	100	Ton	Polymer Modified Rejuvenating Emulsion Fog Seal to be blended with Water. Per specifications.	\$_____/ton
3	14	500	Ton	Polymer Modified Asphaltic Emulsion PMCRS-2h Cationic. Per CalTrans specifications.	\$_____/ton
4	15	100	Ton	Quick Setting Asphaltic Emulsion CQS-1h. Per CalTrans specifications.	\$_____/ton
5	16	100	Ton	Anionic Asphaltic Emulsion SS1h. Per CalTrans specifications.	\$_____/ton
6	17	100	Ton	Fast Set Fog Seal Emulsion Per specifications.	\$_____/ton
7	18	100	Hr	Spreading Charge for Various Emulsions	\$_____/Hr
8		20	Hr	Truck Standby Rate	\$_____/Hr
Note: Please see attached for additional information. Emulsion to be delivered and spread at various locations throughout San Luis Obispo County as needed, Monday through Friday.					
The supplier must provide documentation that the product is approved by Caltrans.					
Order, inquiry and 24 hour contact information is required.					
Contact Name: _____					
Phone # _____ 24 Phone # _____					

PAYMENT TERMS \_\_\_\_\_

Authorized Official Name (Print) \_\_\_\_\_

Authorized Official Title (Print) \_\_\_\_\_

Signature \_\_\_\_\_

Firm Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Telephone \_\_\_\_\_ FAX \_\_\_\_\_

Federal Taxpayer ID# \_\_\_\_\_

☐ Individual/Sole Proprietor
☐ Corporation
☐ Partnership
☐ Other

BIDS MUST BE RECEIVED BY 3:00 P.M. ON APRIL 18, 2012 AND  
WILL BE OPENED IN THE OFFICE OF THE GENERAL SERVICES AGENCY

Bid #3561-12